ABSTRACT

Title

Influence of dynamic and static warm-up on muscle strength in climbers.

O**bjective**

The aim of the thesis is to assess the influence of dynamic warm-up with Thera-Band and static stretching on maximal muscle strength and its time parameters of finger flexors in dominant upper extremity in climbers.

Methods

Eight active climbers participated in this testing (age 32.4 ± 5.5, body weight 69.4 ± 6.5, height 176 ± 6.4). Actual performance RP was according to the French scale ranging 6b to 8a. Probands' measurements proceeded in three different days. After a specific warm-up on "boulder wall" and static stretching and dynamic warm-up with Thera-Band without stretching, there was maximal muscle strength of fingers flexors on dominant (preferred) upper limb measured by using a specific climbing test on hangboard. The second measurement assessed maximal strength of finger flexors muscle and its time parameters while proceeding of the maximum hand-grip using a hand dynamometer.

Results

In the experiment, none of the hypotheses came to be confirmed. There was no significant influence of static stretching and dynamic warm-up with Thera-Band on maximal muscle strength of finger flexors and the time parameters in climbers.

Conclusion

Despite the failure to prove the influence of the static stretching and dynamic stretching warm-up with Thera-Band on muscle strength in climbers, the thesis brought the theoretical and practical information on stretching and warming-up before exercise. The thesis came into terms with its shortages as well as the positive aspects of the experiment were evaluated. The thesis also recommended several ways how to refine on the results and the further documents were prepared for possible future studies dealing with similar issues.

Key words

Sport climbing, muscle strength, static stretching, dynamic warm-up with Thera-Band.